

REMARKS/ARGUMENT

Regarding the Claims in General:

Claims 1, 2, and 4-25 remain in the application, with claims 1, 2, and 4-13 before the Examiner, and claims 14-25 withdrawn from consideration as non-elected. By this communication, it is proposed to amend claim 1 in a further effort to clarify one important distinction over the prior art. The proposed amendment introduces no new matter, and raises no new issues. Nor does it narrow the scope of the claim for statutory purposes related to patentability.

Regarding the Prior Art Rejections:

In the outstanding Office Action, claims 1, 2, and 4-13 are again rejected under 35 U.S.C. 102(b) as being anticipated by Histaka JP 01-296636 (Histaka), and claim 1 is again also rejected under 35 U.S.C. 103(a) as being unpatentable over Okuyama et al. DE 3429375 (Okuyama). These rejections are repeated despite the understanding of applicants' representative from the telephone interview with the Examiner on May 31, 2006, that the outstanding patentability issues relative to Histaka and Okuyama had been resolved.

Now, however, it seems that Examiner has reconsidered, and is saying that claim 1 is still anticipated by Histaka because it shows *a bump forming device* which is partly outside the chamber system (see Office Action, page 1, lines 6-8 of the rejection paragraph, and page 4, Response to Arguments).

Applicants respectfully direct the Examiner's attention to the fact that the plain English meaning of claim 1 in its present form calls for the *bumping site* to be outside the chamber. As to the bump forming device, the only requirement in claim 1 is that it be located *at* the bumping site.

Claim 1 distinguishes over Histaka and Okuyama, because these references, whether considered alone, or in combination, fail to disclose, teach, or suggest *bumping sites* outside the chamber system. It is believed that the Examiner has acknowledged this, and applicants' representative finds nothing in the present Office Action to suggest that he has changed his mind. In short, claim 1 should already have been allowed.

Actually, in further reference to Okuyama, it seems that the Abstract being relied on by the

Examiner might be somewhat vague. Accordingly in an effort to locate an English-language counterpart of the cited Japanese reference, German published application with an English-Language abstract has been found, namely Published Application DE 3429375. A copy of the abstract is reproduced below.

In a soldering method for printed circuit boards, in which a pasty soldering agent is melted after application to the boards, the boards pass through a tunnel-shaped reflow furnace (1) on a conveyor (3). The furnace (1) is subdivided into a preheating zone (Z1), a rapid-heating zone (Z2) and a cooling zone (Z3). In the preheating zone (Z1), the boards are preheated by means of radiant heaters. In the rapid-heating zone (Z2), the temperature of the boards is rapidly increased by means of at least one heater fan (4) to a value lying above the melting point of the soldering paste so that the soldering paste is melted. The boards are then exposed to a coolant flow in the cooling zone (Z3).

As may be seen from this, there is a single furnace 1 divided into four zones Z1-Z4. Therefore, the position 2 (or rather 22) referred to by the Examiner where "bumping" takes place is entirely *inside* the furnace.

Further, from a technical viewpoint, the disclosure of Okuyama is not relevant to the present invention because no "bumping forming device" is required in a reflow operation. The reflow (melting) operation of the type described in Okuyama is used to melt solder already formed on the printed circuit boards outside the furnace. However, the boards are conveyed through the furnace 1 through the different heating zones to melt the material into bumps.

In an effort to advance the prosecution, and to address what appears to be the Examiner's remaining concern, it is proposed to amend claim 1 to read as follows:

a bump forming device located at a bumping site *at which the semiconductor devices are positioned during bumping, the bumping site being situated entirely outside the chamber system* and adjacent to the access opening . . .

This, of course, only reinforces what applicants' representative has asserted all along about claim 1, and therefore can not possibly raise new issues. It is therefore respectfully submitted that the proposed amendment be entered to place the application in condition for allowance.

If there remain any outstanding issues, the Examiner is respectfully requested to contact the

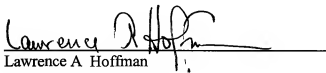
undersigned by telephone so that they can be expeditiously resolved.

In view of the foregoing, favorable reconsideration and allowance of this application are respectfully solicited.

Respectfully submitted,

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LAH:lac:fs


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